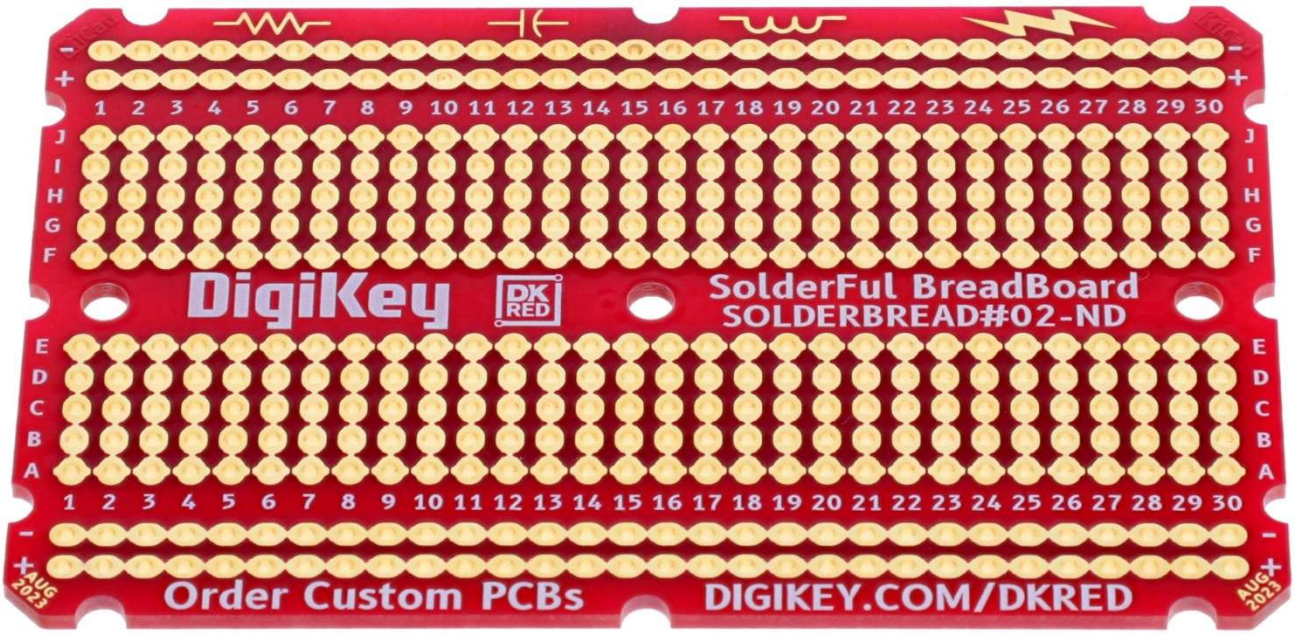
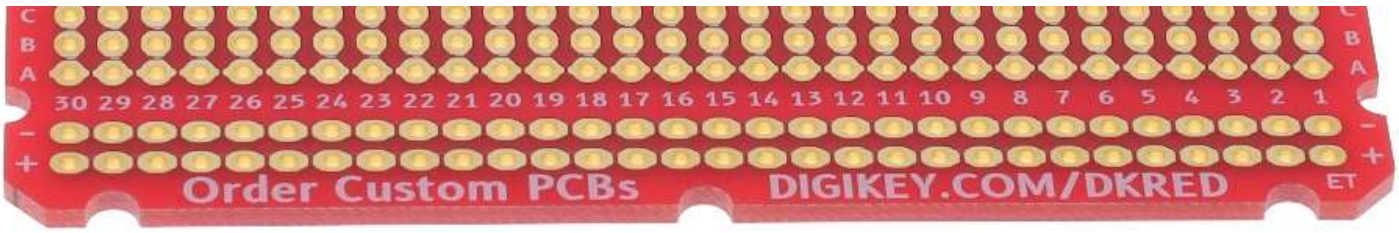
DKS-SOLDERBREAD-02-ND



A Perfboard with a solderless breadboard format.

Back Side: Numbers are Reversed to Match the Rows



Plating	ENIG [Nickel Plated Gold] Plated Through Hole [PTH]
Pitch	0.1” [2.54mm]
Solder Hole Diameter	0.04" [1.00mm]
Mounting Hole Diameter	0.12” [3.00mm]
Size / Dimension	1.90"L x 2.00"W [48.3mm x 50.8mm]
Board Thickness	0.063" [1.60mm]
Material	FR4 Epoxy Glass

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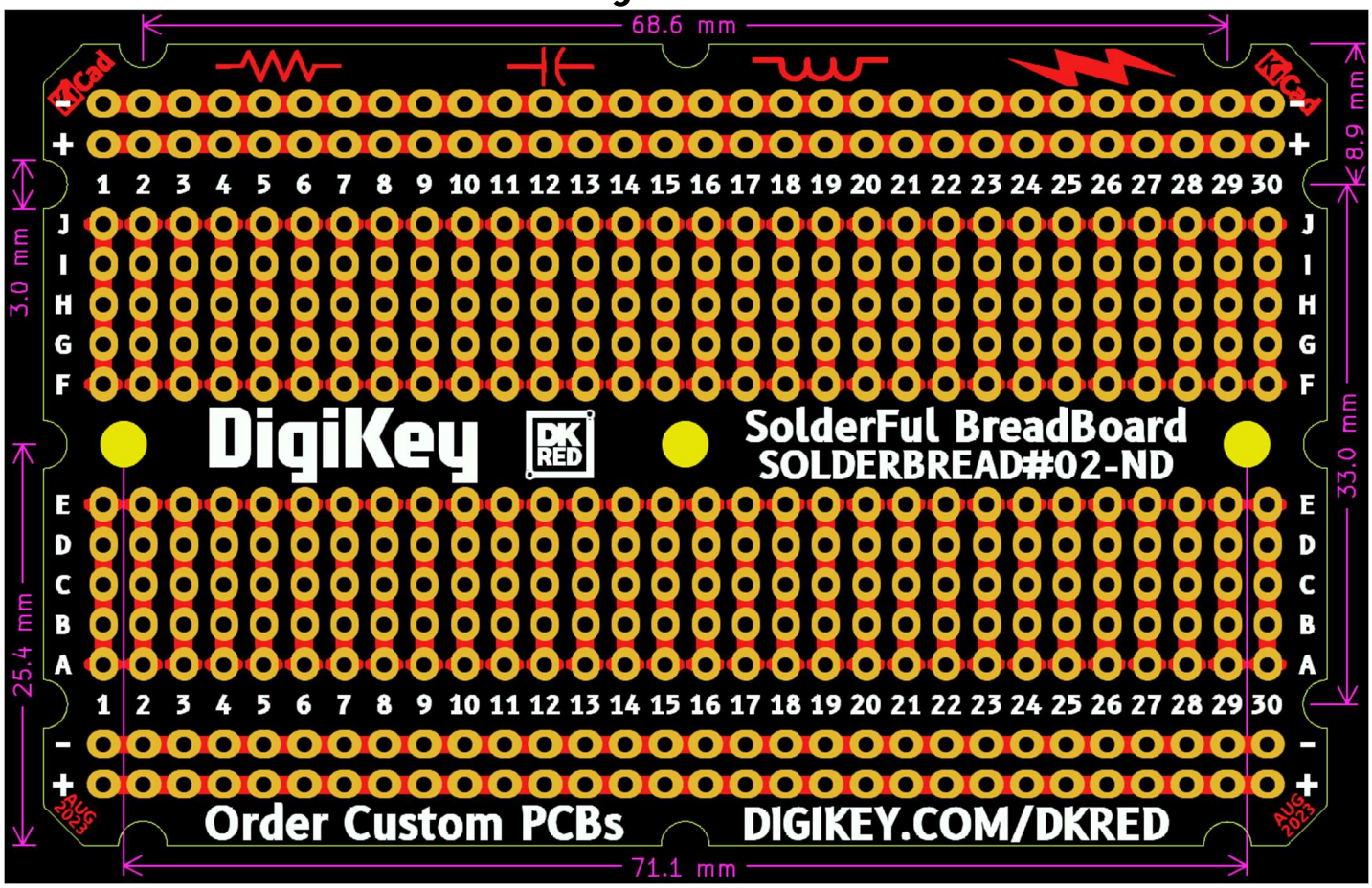
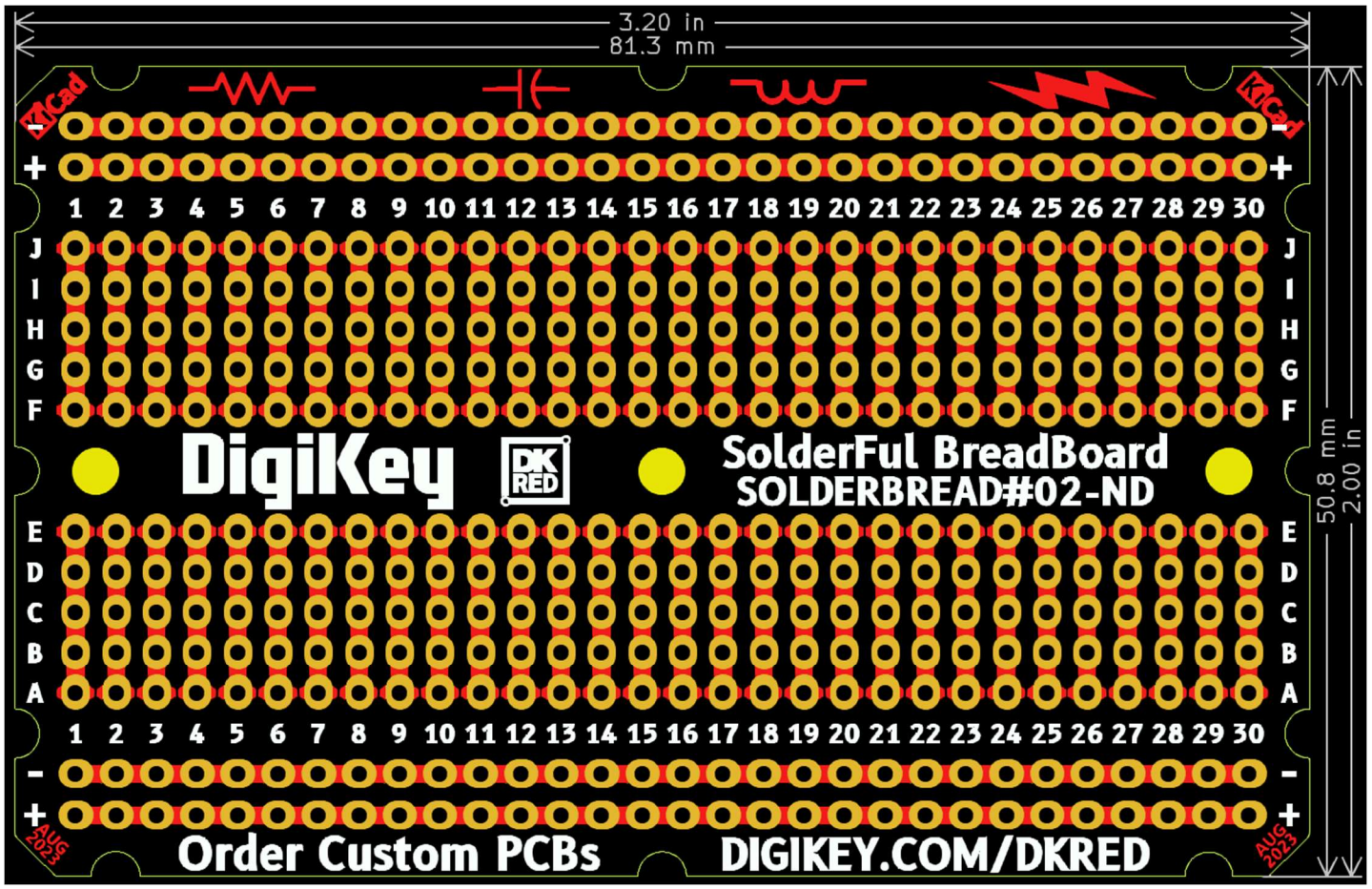
Mounting holes are 3mm



Overall Dimensions



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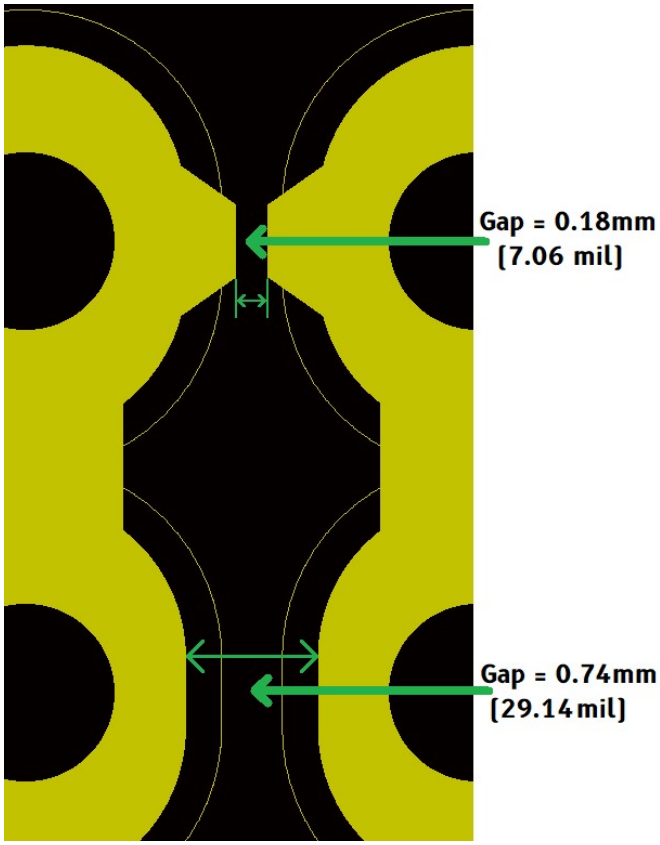
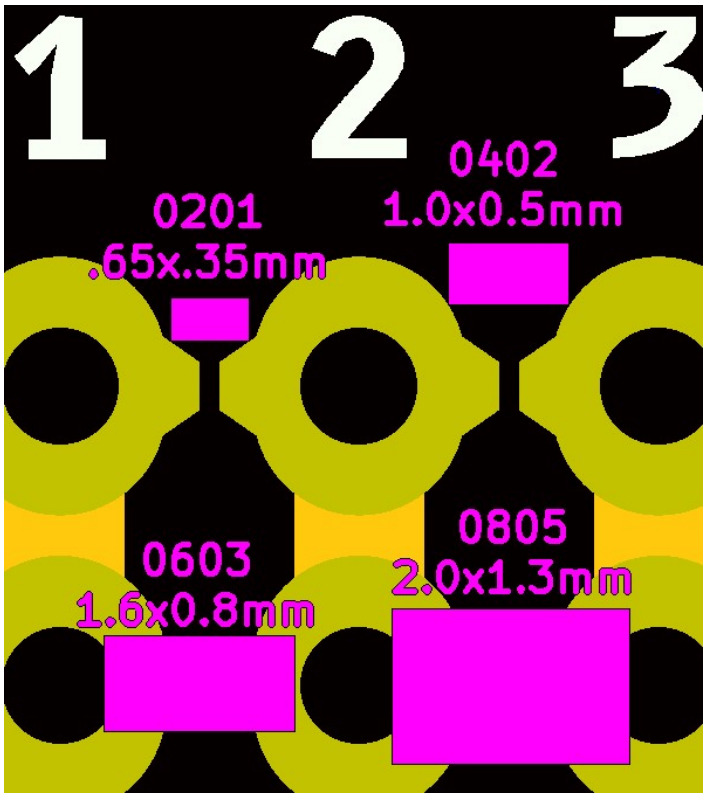
Special Pads for Surface Mount [SMT] 0201 and Up

And for Bridge Neighboring Nets at Each End [scraping the mask away first will help].

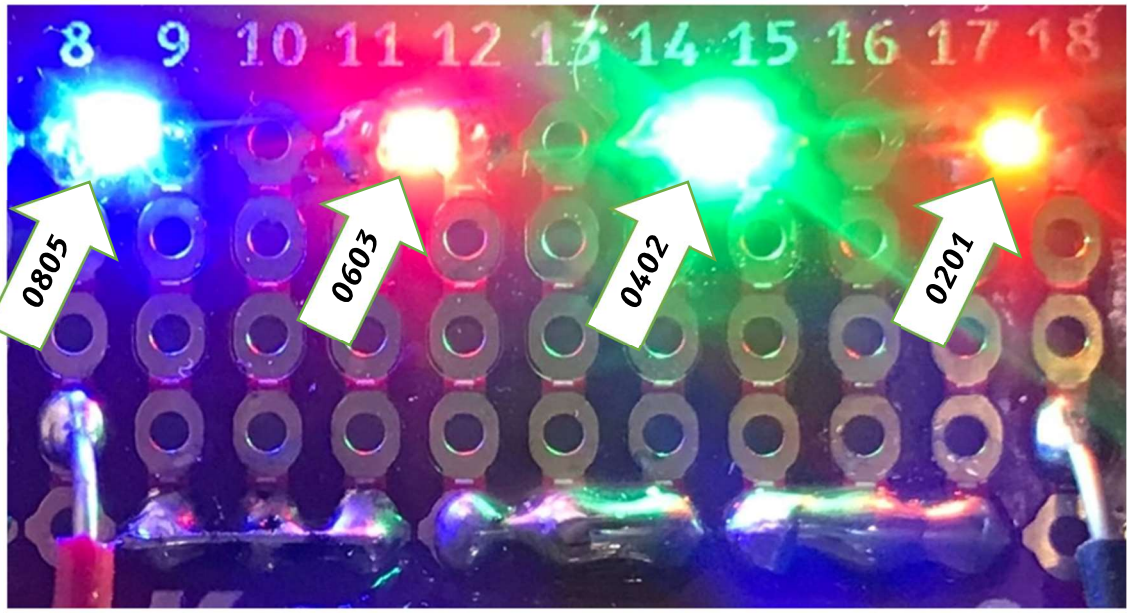


These blocks for reference



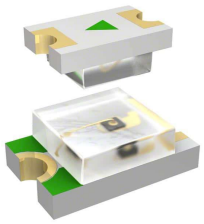
These LEDs were hand soldered as a test.

- ***Hand Soldering 0201 parts should be avoided, but it can be done.***



. ***The LEDs were powered in series at 10mA***

Parts used:



0805 [2012 Metric]

732-4982-1-ND

Blue – 3.2V (Typical) – 2.00mm x 1.25mm

0603 [1608 Metric]

3147-B1911USD-20D000114U1930CT-ND

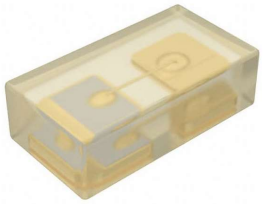
Red – 2V (Typical) – 1.60mm x 0.80mm

0402 [1005 Metric]

732-11990-1-ND

Green – 3.2V (Typical) – 1.00mm x 0.50mm – Very bright, even at 1 mA

0201 [0603 Metric]



754-2027-1-ND

Orange – 2V (Typical) – 10mA – 0.65mm x 0.35mm

A Bonus LED

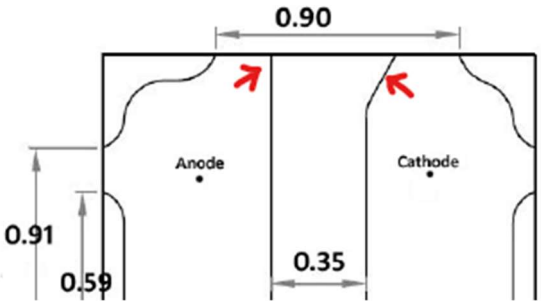
- Lit in series at 5mA

1214-MP-1616-2103-PGCT-ND

A 6V (Typ) 'Green' (Created by down-converting blue via phosphor like white LEDs are made)

At 148lm/W, this little 1.60mm² package puts out **a lot** of green-white light, so even with a few milliamps; it can be a unique indicator.

Be warned- their polarity markings are not obvious ➡



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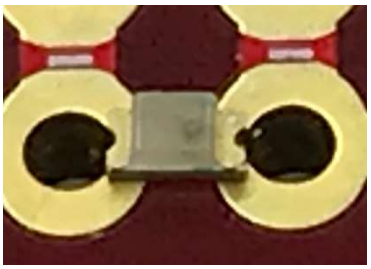
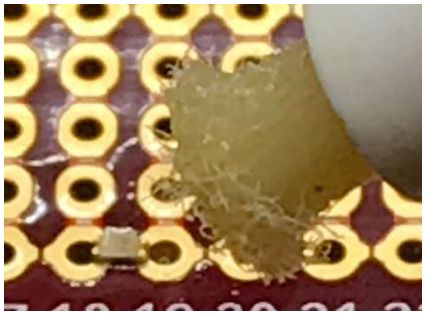
How to Solder Two Terminal SMT Parts:

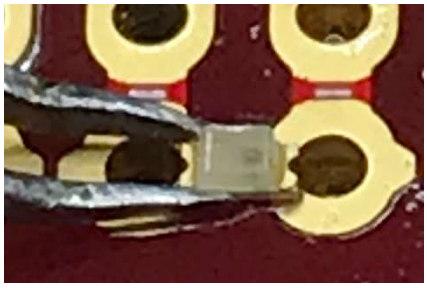
1. Place your part on pads
[0603 used here]





2. Add flux to one side of part and pad

3. Add solder to your iron



4. Hold the part with tweezers

5. Touch iron to 'fluxed' pad

6. Turn board around and repeat.
7. Clean flux off

0201 shown for scale next to the Registered Trademark symbol on the first version board [shown below].

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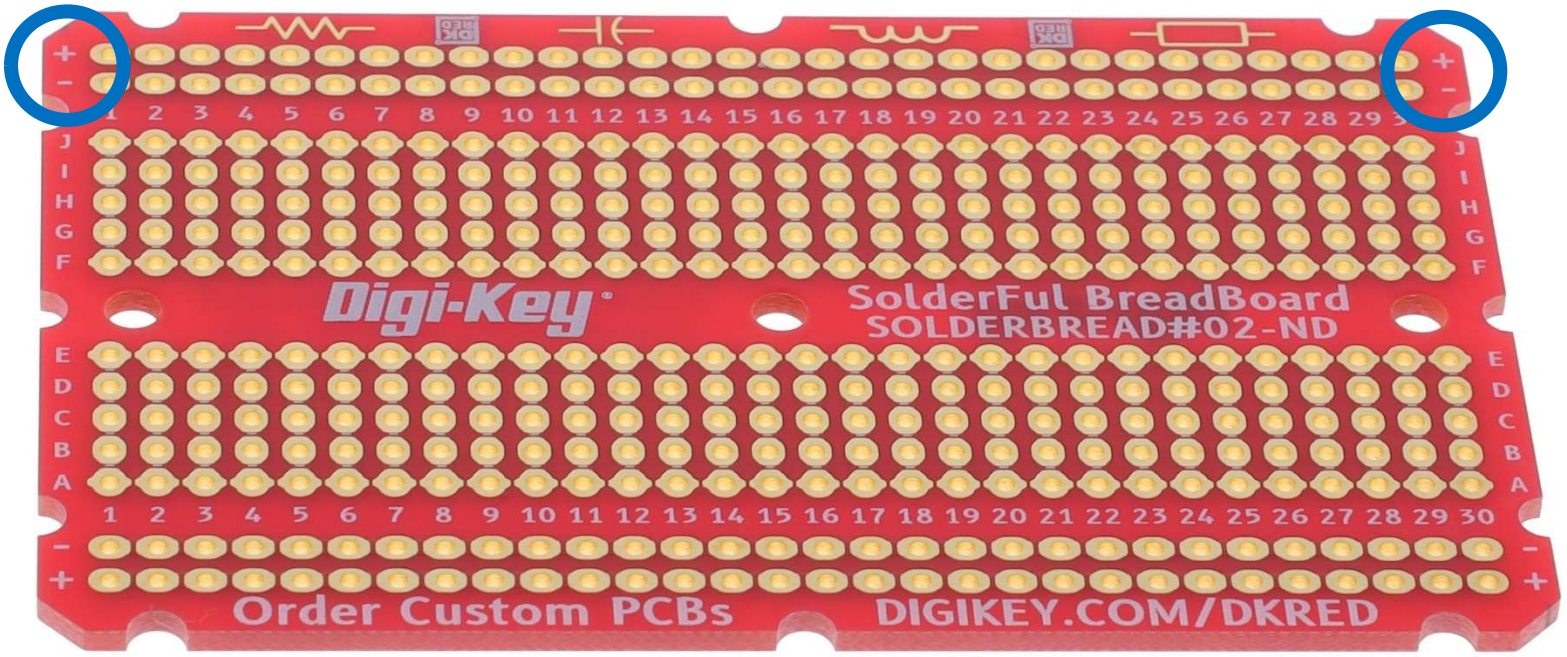
Errata:

The first revision had the + and – reversed at the top.



A big Thank You to KiCad!

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